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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/529,239

03/25/2005

Kang Mo Choi

9988.219.00

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30827

7590

02/25/2008

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EXAMINER

REESE, DAVID C

ART UNIT

PAPER NUMBER

3677

MAIL DATE

DELIVERY MODE

02/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/529,239	Applicant(s) CHOI ET AL.	
	Examiner David C. Reese	Art Unit 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-26 and 28-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-26 and 28-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/5/2007 has been entered. Consequently, the following is the current listing of claims in the instant application:

Status of Claims

- Claims 13, 27, and 31-35 were canceled.
- Claims 1, 3-9, 11, 22-26, and 30 were amended.
- Claims 1-12, 14-26, and 28-30 are pending.

Claim Objections

[1] Claim 1 recites the limitation "the leg bolt" in the instant claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 is objected to because of the following informalities: It is unclear to the examiner the difference between the claimed supplementary member and the extension member. It is apparent to the examiner that the supplemental member and the extension member may indeed be referring to the same structure; the structure of that extending from a circumference of the hub to the space between the ribs (the area labeled as 131 in the applicant's drawings).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

[2] Applicant has addressed all rejections under 35 USC § 112 to the Claims in the amendment filed 11/5/2007. Accordingly, the Examiner has withdrawn the 35 USC § 112 rejections.

However:

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

[3] Claims 9 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to the examiner how the first and second sides can be gradually thickened from an upper part of the rib to the extension member and from a lower part of the rib to the extension member, respectively, when the extension member has been defined as extending from a circumference of the hub to a space between the ribs (see claim 7 objection as well). It is apparent to the examiner that further structural limitations are needed for the extension member for proper definiteness of the claim. (Such as that stated in the applicant's spec on page 13, lines 3-10, "...more particularly, to the lower surface of the extension member 131 having an end portion provided adjacent to the upper part of the rib 120"). That is, in what parts of the extension member do both the first and second sides of the rib (with their gradual thickening) end into respectively?

Claim Rejections - 35 USC § 102

[4] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

[5] Claims 1-8, 10-12, 14-21 are rejected under 35 U.S.C. 102(b) as clearly anticipated by Grube, US-4,281,699, because the invention was patented or described in a printed publication in this or a foreign country, or in public use or on sale in this country more than one (1) year prior to the application for patent in the United States.

The shape and appearance of Grube is identical in all material respects to that of the claimed design, *Hupp v. Siroflex of America Inc.*, 122 F.3d 1456, 43 USPQ2d 1887 (Fed. Cir. 1997).

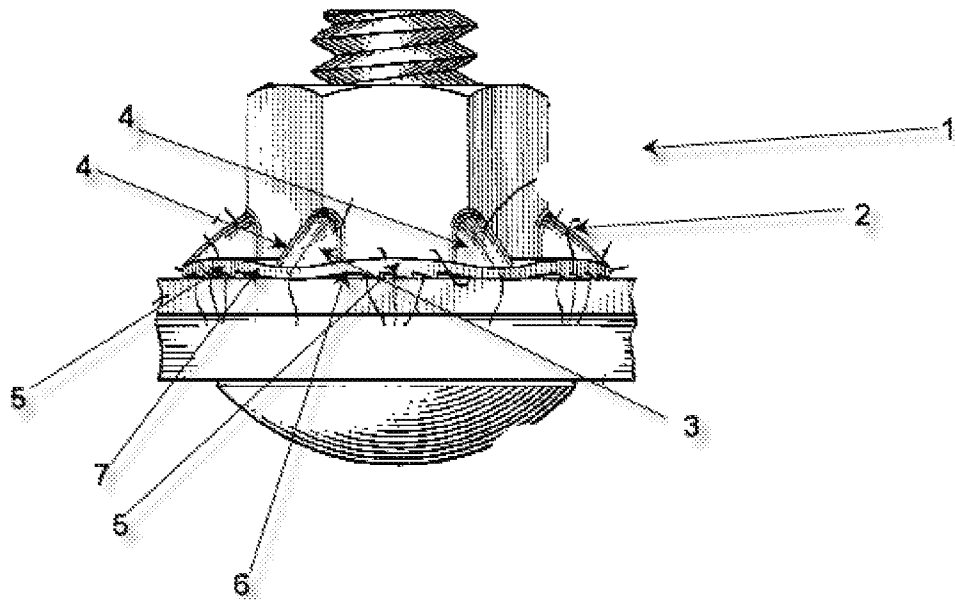
As for Claim 1, Grube discloses of a lock nut (1) (see figure below) [for a leg assembly of electric home appliances], comprising:

a plurality of ribs (2) extending in a radius direction from a circumference of a hub, each rib having first (3) and second sides (4) over which [a tool or finger for rotating the hub about the leg bolt]; and

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a plurality of supplementary members (5), each supplementary member (5) [being configured to provide the tool or finger access from the radius direction of the hub to the first (3) or second side (4)], and coupling the ribs (2);

wherein an inclination direction of a first supplementary member (5) adjacent to the first side (3) and an inclination direction of a second supplementary member (5) adjacent to the second side (4) are upward (at 6) and downward (at 7) alternatively.



The above statement in brackets is an example of intended use, with the prior art only needing to be capable of performing said function to be anticipatory towards that of the prior art, and in the instant case, the lock nut as presented by Grube is indeed capable of being used for a leg assembly of electric home appliances, as well as having a tool or finger access said nut (at the

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locations as claimed above) for rotating the hub. Note that it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham, 2 USPQ2d 1647 (1987)*.

Re: Claim 2, wherein the height of the rib (2) is same as or lower than that of the hub, and the height of the supplementary member (5) is lower than that of the rib (2).

Re: Claim 3, wherein the first (3) or second side (4) is perpendicular to a horizontal plane.

Re: Claim 4, wherein the first (3) or second side (4) is inclined to a perpendicular line.

Re: Claim 5, wherein at least one of the first (3) and second (4) sides of the rib (2) gets larger (the sides, 3 and 4 possess a longer diameter the farther they are from the hub) from the hub toward an end to the rib (2).

Re: Claim 6, wherein an end portion and both first and second sides of the rib (2) are geared to the [tool when the tool accessed from the radius direction of the hub].

Re: Claim 7, wherein the supplementary member (5) comprises an extension member (5) extended from a circumference of the hub to a space between the ribs (2).

Re: Claim 8, wherein the first (3) or second side (4) is inclined to a perpendicular line.

Re: Claim 10, wherein the extension member (5) is extended from a center of a height direction of the hub, and has a lower height than the rib (2).

Re: Claim 11, wherein the extension member (5) is inclined [such that the tool or finger accessed from the radius direction of the hub easily touches the first and second side].

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Re: Claim 12, wherein the extension member (5) is inclined such that a first end of thereof of being coupled with the hub is higher than a second end thereof being adjacent to the end portion of the rib (2).

Re: Claim 14, wherein an end portion of the extension (5) is provided to be adjacent to a lower part or upper part of the end portion of the rib (2) such that a single exposed area of a portion being adjacent to the end portion of the rib on the sides becomes larger.

Re: Claim 15, wherein a center portion of the end portion of the extension member (outer 5) is curved toward the hub.

Re: Claim 16, wherein an end portion of the rib (2) forms a corner of the lock nut (1).

Re: Claim 17, wherein an end portion of the rib (2) is rounded.

Re: Claim 18, wherein the supplementary member (5) comprises a rim (outer 5) for coupling the end portion of the ribs (2).

Re: Claim 19, wherein the rim (outer 5) is lower than the rib (2) and coupled with an upper or lower part of the rib (2).

Re: Claim 20, wherein the rim (outer 5) is provided to be perpendicular to a horizontal plane.

Re: Claim 21, wherein one (outer 5) of two rims (inner and outer 5) located both sides of the end portion of the rib (2) is coupled with an upper part of the rib (2), and the other rim (inner 5) is coupled with a lower part thereof.

Claim Rejections - 35 USC § 103

[6] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[7] Claims 22-24, 26, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grube, US-4,281,699, in view of Johnson, US-3,868,079.

Although the invention is not identically disclosed or described as set forth 35 U.S.C. 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a designer having ordinary skill in the art to which said subject matter pertains, the invention is not patentable.

As for Claim 22, Grube teaches of a lock nut (1) for a leg assembly (see figure below), comprising:

a hub having a screw hole through which a leg bolt passes, the leg bolt coupled with an electric home appliance;

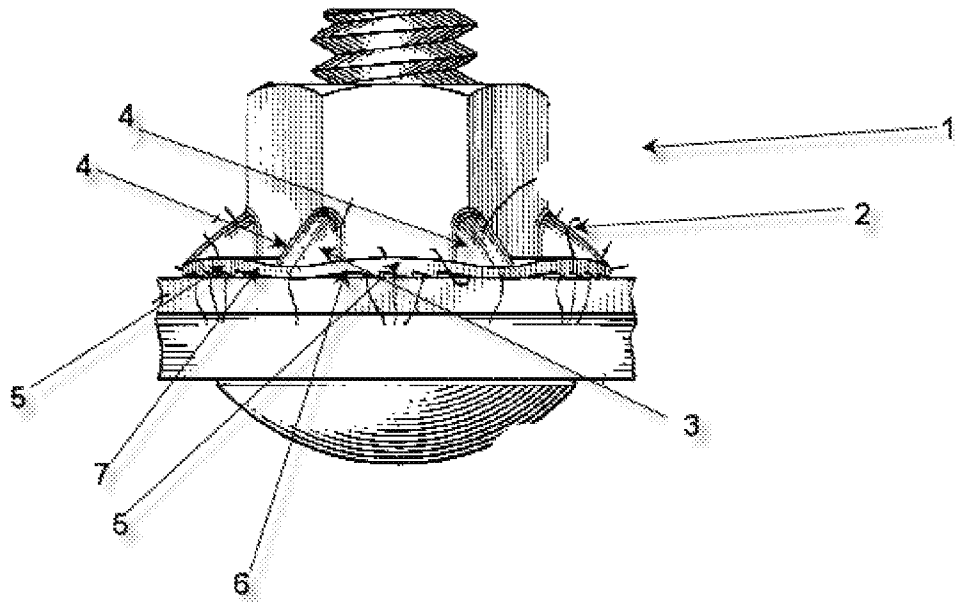
a plurality of ribs (2) extended in a radius direction from a circumference of the hub, each having first (3) and second sides (4) over which [a tool or finger accessed from the radius direction of the hub is hooked so as to rotate the hub about the leg bolt];

a plurality of extension members (5), each extension member (5) being extended from a circumference of the hub to a space between the ribs (2); and

a rim (outer portion of 5) for coupling end portion of the ribs(2),

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wherein an inclination direction (6) of a first extension member (5) adjacent to the first side (3) is different than an inclination direction (7) of a second extension member (5) adjacent to the second side.



The difference between the claim and Grube is that Grube does not expressly state that the locking nut is used in conjunction with a leg bolt coupled with an electric home appliance. First, it is extremely obvious and apparent to one skilled in the art of fasteners of the diverse functionality of locking nuts. The use of locking nuts for a variety of applications including that of with home appliances is widely held and understood to those in the art. To show the use of a nut in conjunction with a leg bolt coupled with an electric home appliance the examiner submits the reference of Johnson. Johnson discloses a threaded locking nut attached to a leg bolt of a home appliance, specifically a washing machine. Thus, it would have obvious to one skilled in

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the art to have used the locking nut as provided by Grube with numerous applications, one of which being integral with a leg bolt coupled with a home appliance as shown by Johnson. One would want such a configuration so as to help deter inadvertent removal of the leg bolt and support the leg bolt during various movements while being attached to the washing machine assembly.

Re: Claim 23, wherein the first (3) or second side (4) is perpendicular to a horizontal plane.

Re: Claim 24, wherein the first (3) or second side (4) is inclined to a perpendicular line.

Re: Claim 26, wherein one of the first and second extension members (5) is inclined such that a first end (inner 5) of thereof of being coupled with the hub is higher than a second end (outer 5) thereof being adjacent to the end portion of the rib (2).

Re: Claim 28, wherein the rim (outer 5) is perpendicularly extended from the end of the extension member (inner 5) to an upper part or lower part of the rim (2).

Re: Claim 29, wherein one (outer 5) of two rims (inner and outer 5) located both sides of the end portion of the rib (2) is coupled with the upper part of the rib (2), and the other rim (inner 5) is coupled with the lower part thereof.

Re: Claim 30, wherein the coupling portion of the rib (2), one of the extension members (5), and the rim (outer 5) is rounded.

Allowable Subject Matter

[8] Claims 9 and 25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

[9] Applicant's amendment, see amendment and remarks filed 11/5/2007, with respect to the rejection(s) of claim(s) under Nelson, have been fully considered. Therefore, the rejection with regard to Nelson has been withdrawn. However, upon further consideration of the amended claims, a new ground(s) of rejection is made in view of Grube, US-4,281,699. Consequently, all arguments are considered moot to said new grounds of rejection.

Conclusion

[10] THIS ACTION IS NON-FINAL

[11] Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Reese whose telephone number is (571) 272-7082. The examiner can normally be reached on 7:30 am-6:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Sandy can be reached at (571) 272-7073. The fax number for the organization where this application or proceeding is assigned is the following: (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Reese

/D. C. R./
Examiner, Art Unit 3677

/Robert J. Sandy/
Acting SPE of Art Unit 3677